

## ABSTRACT OF THE DISCLOSURE

A process for converting latent heat of water vapor, appearing with non-condensable gases expelled into the atmosphere, into more useful forms of energy, such as process steam / electricity. It uses pressurized direct contact heat exchange systems to achieve this conversion at high thermal efficiencies. When pressure combustion is used in combination with pressurized water electrolysis it produces pressurized by-product hydrogen which can be used to extract methane from methane hydrate ice located below the earth and sea.